					17.44		
	Oxidoredukt	ase aus Pic		ta<130> (T	Enzyme Prod H)4090<160> Pichia caps	10 <	170 0>
egeggtggeg	geegetetag					60	
atctttctca	actacaatgt	ctgctctctc	caaaacccag	gccggttaca	tcttcaagaa	120	
gggtgccggt	cacatcgtca	aggccgaggt	tecaatecee	aagccaactg	gtgcccaatc	180	
tcttcttagg	gtcaaggctg	caggaatgtg	ccactctgac	ttgcacgtca	ttggagaaac	240	
attggaggtc	cctaccgatg	ggtacgtgct	cggtcacgaa	attgctggtg	aattggtgga	300	
gatcggagac	teggteaacc	ctgaagtttt	taaggtggga	ggccgttatg	ctgttcatgg	360	
actgaattcg	tgtggatcct	gtgagatgtg	tegtaceggt	catgacaatg	actgtactgg	420	
aaatgaatcg	aaatggtacg	gtctgggaat	tagtggtg g t	taccagcagt	acctgctggt	480	
gccaaattcg	caccatctat	tgcctattcc	agataacgtg	tcctacgaag	ttgctgctgc	540	
cacctctgat	gctgtcttga	ctccatacca	tgctatcaag	aattccggag	tgactccatc	600	
ttctaaggtg	ttgatgtttg	gtctgggtgg	tttgggatcg	aacgcacttc	agatcctcaa	660	
ggcatttgga	gcctatgtgg	ttgccgttga	tgtcaagccc	gcatccaaag	caattgccga	720	
cgaattcaaa	gcggatgaat	tctataccga	tatcagccaa	tcttcttgga	aaccagcete	780	
gtttgattac	tgttttgact	tegttteget	geaggteace	ttcgacatct	gccagaagta	840	
tatcaagtcc	cacggtacca	tetteccagt	gggtetgggc	tcgagcaagc	tgactttcga	900	
cttgggäaac	ctggcattgc	gtgaagtaaa	aattgttggt	aacttctggg	gtacttctca	960	
ggaacagatc	gaagcaatgg	agctggttag	ctcgggtagg	gtcaagcctc	aagttcacac	1020	
caccgaactt	gaaaaccttc	ctgaatcact	tgaaaaactg	gaggagggta	agatcaatgg	1080	
aagattggtt	atgettecat	gatcacaaac	tatttataac	gagatacgag	aaaaagttta	1140	
atatgatgtc	gtttttccaa	tcaaaagggg	ggccc			1175	

Ser Ala Arg Gly Ser Phe Ser Thr Thr Met Ser Ala Leu Ser Lys Thr $\frac{1}{20}$ $\frac{1}{20}$

Gln Ala Gly Tyr Ile Phe Lys Lys Gly Ala Gly His Ile Val Lys Ala 35 40 45

- Glu Val Pro Ile Pro Lys Pro Thr Gly Ala Gln Ser Leu Leu Arg Val 50 55 60
- Lys Ala Ala Gly Met Cys His Ser Asp Leu His Val Ile Gly Glu Thr $65 \hspace{1.5cm} 70 \hspace{1.5cm} 75 \hspace{1.5cm} 10 \hspace{1.5cm} 60 \hspace{1.5cm} 10 \hspace{1.5cm}$
- Leu Glu Val Pro Thr Asp Gly Tyr Val Leu Gly His Glu Ile Ala Gly 85 90 95
- Glu Leu Val Glu Ile Gly Asp Ser Val Asn Pro Glu Val Phe Lys Val 100 105 110
- Gly Gly Arg Tyr Ala Val His Gly Leu Asn Ser Cys Gly Ser Cys Glu 115 \$120\$
- Met Cys Arg Thr Gly His Asp Asn Asp Cys Thr Gly Asn Glu Ser Lys 130 135
- Trp Tyr Gly Leu Gly Ile Ser Gly Gly Tyr Gln Gln Tyr Leu Leu Val $145 \hspace{1.5cm} 150 \hspace{1.5cm} 155 \hspace{1.5cm} \cdot 160 \hspace{1.5cm}$
- Pro Asn Ser His His Leu Leu Pro Ile Pro Asp Asn Val Ser Tyr Glu 165 170 175
- Val Ala Ala Ala Thr Ser Asp Ala Val Leu Thr Pro Tyr His Ala Ile 180 185 190
- Lys Asn Ser Gly Val Thr Pro Ser Ser Lys Val Leu Met Phe Gly Leu 195 200
- Gly Gly Leu Gly Ser Asn Ala Leu Gln Ile Leu Lys Ala Phe Gly Ala 210 \$215\$
- Tyr Val Val Ala Val Asp Val Lys Pro Ala Ser Lys Ala Ile Ala Asp 225 230 235
- Glu Phe Lys Ala Asp Glu Phe Tyr Thr Asp Ile Ser Gln Ser Ser Trp \$245\$
- Lys Pro Ala Ser Phe Asp Tyr Cys Phe Asp Phe Val Ser Leu Gln Val 260 265

Thr	Phe	Asp 275	Ile	Суз	Gln	Lys	Tyr 280	Ile	Lys	Ser	His	Gly 285	Thr	Ile	Phe		
Pro	Val 290	Gly	Leu	Gly	Ser	Ser 295	Lys	Leu	Thr	Phe	Asp 300	Leu	Gly	Asn	Leu		
Ala 305	Leu	Arg	Glu	Val	Lys 310	Ile	Val	Gly	Asn	Phe 315	Trp	Gly	Thr	Ser	Gln 320		
Glu	Gln	Ile	Glu	Ala 325	Met	Glu	Leu	Val	Ser 330	Ser	Gly	Arg	Val	Lys 335	Pro		
Gln	Val	His	Thr 340	Thr	Glu	Leu	Glu	Asn 345	Leu	Pro	Glu	Ser	Leu 350	Glu	Lys		
Leu	Glu	Glu 355	Gly	Lys	Ile	Asn	Gly 360	Arg	Leu	Val	Met	Leu 365	Pro				
<210 gtaa			l>]		L2>	DNA-	<213	> A:	rtif:	lcia:	1<40	0>	3				17
<210 caat		1<21 ecc t	l> 2 cact	21<21 taaaq		DNA-	<213	> A:	rtif:	icia	1<40	0>	4				21
<210 gga <i>a</i>		5<211 cat a	-	30<21 etget			<213:		rtif:	icia	1.<40	0>	5				30
		5<211 gc t		32<21 gtete			<213: ccaa:		rtif:	icia	1<40	0>	6				32
<210 ccca		7<21] tt o					<213: aatc		rtif:	icia	1<40	0>	7				31
<210 atgt		3<211 etc t		LO26<			NA<2								8 cacat	tc	60
gtca	aggo	ccg a	aggtt	tccaa	at c	ccca	agcc	a ac	tggt	gccc	aat	ctct	tct	tagg	gtca	ag	120
gctg	cag	gaa t	gtg	ccact	c t	gact	tgca	c gt	catt	ggag	aaa	catt	gga	ggtc	ccta	do	180
gatg	ggta	acg t	gete	eggte	ca c	gaaa	ttgc	t gg	tgaa	ttgg	tgg	agat	cgg	agac	teggi	tc	240
aacc	ctga	ag t	tttt	aagg	gt g	ggag	geeg	t ta	tgct	gttc	atg	gact	gaa	ttcg	tgtg	ga	300
tcct	gtga	ıga t	gtgt	cgta	ac c	ggtc	atga	c aa	tgac	tgta	ctg	gaaa	tga	atcg	aaat	gg	360

tacggtctgg	gaattagtgg	tggttaccag	cagtacctgc	tggtgccaaa	ttcgcaccat	420
ctattgccta	ttccagataa	cgtgtcctac	gaagttgctg	ctgccacctc	tgatgctgtc	480
ttgactccat	accatgctat	caagaattcc	ggagtgactc	catcttctaa	ggtgttgatg	540
tttggtctgg	gtggtttggg	atcgaacgca	cttcagatcc	tcaaggcatt	tggagcctat	600
gtggttgccg	ttgatgtcaa	gecegeatee	aaagcaattg	ccgacgaatt	caaagcggat	660
gaattctata	ccgatatcag	ccaatcttct	tggaaaccag	cctcgtttga	ttactgtttt	720
gacttcgttt	cgctgcaggt	caccttcgac	atctgccaga	agtatatcaa	gtcccacggt	780
accatcttcc	cagt gggtc t	gggctcgagc	aagctgactt	tcgacttggg	aaacctggca	840
ttgcgtgaag	taaaaattgt	tggtaacttc	tggggtactt	ctcaggaaca	gatcgaagca	900
atggagetgg	ttagctcggg	tagggtcaag	cctcaagttc	acaccaccga	acttgaaaac	960
cttcctgaat	cacttgaaaa	actggaggag	ggtaagatca	atggaagatt	ggttatgctt	1020
ccatga						1026

<210> 9<211> 341<212> PRT<213> Pichia capsulata<400> 9

Met Ser Ala Leu Ser Lys Thr Gln Ala Gly Tyr Ile Phe Lys Lys Gly
1 5 10

Ala Gly His Ile Val Lys Ala Glu Val Pro Ile Pro Lys Pro Thr Gly $20 \\ 25 \\ 30$

Ala Gln Ser Leu Leu Arg Val Lys Ala Ala Gly Met Cys His Ser Asp 35 40 45

Leu His Val Ile Gly Glu Thr Leu Glu Val Pro Thr Asp Gly Tyr Val 50 60

Leu Gly His Glu Ile Ala Gly Glu Leu Val Glu Ile Gly Asp Ser Val 65 70 75 80

Asn Pro Glu Val Phe Lys Val Gly Gly Arg Tyr Ala Val His Gly Leu 85 90 95

Asn Ser Cys Gly Ser Cys Glu Met Cys Arg Thr Gly His Asp Asn Asp 100 105 110

Cys Thr Gly Asn Glu Ser Lys Trp Tyr Gly Leu Gly Ile Ser Gly Gly 115 120 125

Tyr Gln Gln Tyr Leu Leu Val Pro Asn Ser His His Leu Leu Pro Ile 130 135 140

Pro Asp Asn Val Ser Tyr Glu Val Ala Ala Ala Thr Ser Asp Ala Val 145 155 160

Leu Thr Pro Tyr His Ala Ile Lys Asn Ser Gly Val Thr Pro Ser Ser 165 170 175

Lys Val Leu Met Phe Gly Leu Gly Gly Leu Gly Ser Asn Ala Leu Gl
n 180 185 190

Ile Leu Lys Ala Phe Gly Ala Tyr Val Val Ala Val Asp Val Lys Pro 195 200 205

Ala Ser Lys Ala Ile Ala Asp Glu Phe Lys Ala Asp Glu Phe Tyr Thr 210 215 220

Asp Ile Ser Gln Ser Ser Trp Lys Pro Ala Ser Phe Asp Tyr Cys Phe 225 230 235 240

Lys Ser flis Gly Thr Ile Phe Pro Val Gly Leu Gly Ser Ser Lys Leu $260 \hspace{1cm} 265 \hspace{1cm} 265 \hspace{1cm} 270 \hspace{1cm}$

Thr Phe Asp Leu Gly Asn Leu Ala Leu Arg Glu Val Lys Ile Val Gly 275 280 285

Asn Phe Trp Gly Thr Ser Gln Glu Gln Ile Glu Ala Met Glu Leu Val 290 \$295\$

Ser Ser Gly Arg Val Lys Pro Gln Val His Thr Thr Glu Leu Glu Asn 305 310 315 320

Leu Pro Glu Ser Leu Glu Lys Leu Glu Glu Gly Lys Ile Asn Gly Arg 325 330 335

Leu Val Met Leu Pro 340